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FEASIBILITY STUDY ON STANDARDIZATION

OF APPLICATION SOFTWARE

1. EXECUTIVE SUMMARY

2. INTRODUCTION

This section will discuss the way the committee was formed and its members. A distinction will be made between Application Software and Systems Programming. The Software Engineering Cycle will be explained: Definition, Design, Programming, Testing, and Operation. This breakdown should help the reader understand what areas we chose to standardize.

3. CURRENT SYSTEM

Discuss how Software Engineering takes place in CIA. Mention that it is a combination of decentralization (NPIC, DDO, COMMO, OD&E, OCR) and centralization (ODP). The number of people in Software Engineering should be specified. The current standards used by the major organizations should be summarized.

4. DISCUSSION

4.1 Discuss the need for uniform practices in CIA. Some reasons are:

- One set of terminology would make all communications about the Software Engineering Cycle more understandable.

- Applications groups may need to communicate with each other. Under decentralization, more than one application group may be working parts of the same problem. i.e., CDS, CRAFT.

- All applications groups should respond to the EAG review guidelines in a consistent manner.

- The decentralized ADP shops may have common customers. The customers would greatly appreciate some consistency.

- The work statement for RFP's should be consistent for OL and ODP review.

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- If the concept of a single career service is adopted it is proper that we all develop the same methodology. If decentralization is encouraged, each group should not have to reinvent the proper procedure for Software Engineering.

- New methodologies in Software Engineering can more easily be adopted throughout CIA via the Standards.

4.2 The formal communication process that occurs during the Definition Phase should be standardized. The amount of paperwork generated should be proportional to the size and complexity of the job. The application group will make this determination early in the Definition phase.

4.2.1 Present the 16 headings in the Definition Phase.

1. Mission and objectives of user component
2. Current system
3. Problems with current system
4. User requirements
5. Alternative solutions
6. Costs and benefits of each solution
7. Recommendation
8. Proposed system
9. Application group responsibility
10. Customer responsibility
11. Review procedures during Design Phase
12. Reporting procedures during Software Engineering Cycle
13. Change control during Software Engineering Cycle
14. Documentation requirements
15. Schedule
16. Review procedures after operation

4.2.2 Discussion of the Feasibility Study

4.2.3 Discussion of the Project Proposal

4.3 Issues that need additional study

- Define ADP costs - What people are included? At what cost? How do we charge for hardware? Are we consistent? How is contractor time charged?

- Uniform reporting of progress during the Software Engineering Cycle.

* Approval of ADP projects - Role of ADP shop, user, Office and Directorate ADP coordinators, EAG.

* Review procedures after operation.

5. CONCLUSIONS

6. RECOMMENDATIONS

* Adoption of standards for Definition Phase.

* ODP be responsible for distribution and updates of standards. This is in coordination with and responding to the other application groups.

* A committee be formed to look at four areas specified in 4.3.

ATTACHMENTS:

Appendix A - Terms and Definitions

Appendix B - Application Resources in Agency